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Engineering Statement  
Station KDOC-TV, Anaheim, CA

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55 at Mount Wilson would result in excessive interference to the NTSC channel 56 operation at Sunset Ridge, and so would prevent the intended move of KDOC-TV to Mount Wilson if the channel 55 DTV allotment is adopted.

Although, on paper, KDOC-TV provides adequate coverage of its principal community and the Los Angeles basin,<sup>1</sup> the reality is that a substantial portion of the viewers with outdoor antennas and those without outdoor antennas who rely on built-in antennas or antennas mounted on the tops of receivers, generally orient for optimum reception from Mount Wilson. For the most part, those antennas have a significant discrimination against the signals arriving from Sunset Ridge. A study conducted by Gary Litiker Media Research which concludes that antenna orientation discrimination is a major factor for the low viewing percentage of KDOC-TV among non-cable households, is furnished elsewhere as part of this Golden Orange response.

The MSTV/Broadcasters' Submission is designed to remedy certain

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<sup>1</sup> Stations located at Mount Wilson provide service, also, to the heavily populated San Fernando Valley, an area that is within the existing channel 56 Grade B contour, but is terrain obstructed from Sunset Ridge. A relocation of KDOC-TV to Mount Wilson would eliminate this coverage problem for KDOC-TV.

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deficiencies which are claimed to be inherent in the FCC's Sixth Report and Order allotment table. To that end, Golden Orange has no quarrel. However, a close examination of the Los Angeles allotments proposed by MSTV/Broadcasters reveals that by a simple switch of two channels the claimed benefits of the revised plan will not be altered, while yet preserving for Golden Orange the opportunity for relocating KDOC-TV to Mount Wilson. Specifically, channel 26 is proposed for interchange with channel 55.<sup>2</sup>

The MSTV/Broadcasters plan includes, in addition to the channel 55 DTV allotment for KDOC-TV, the allotment of channel 26 for DTV use by KZKI, licensed to San Bernardino. KZKI's current NTSC operation is on channel 30. KZKI operates from Sunset Ridge along with KDOC-TV. As a San Bernardino licensed station, KZKI is foreclosed from relocating to Mount Wilson, in any event, since compliance with the principal community coverage requirement of Section 73.625(a) cannot be achieved as mandated in Section 73.623(c)(1).

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<sup>2</sup> A number of other channels referenced in the MSTV/Broadcasters revised table could be used, also, by Golden Orange at the Mount Wilson site for DTV operation simultaneous with the operation of KDOC-TV on channel 56, including channels 23, 33, 38 and 41.

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Figure 1 is a terrain shadow study from an arbitrarily selected tower on Mount Wilson<sup>3</sup> which demonstrates that approximately 70 percent of San Bernardino is terrain shadowed from Mount Wilson. Figure 2 is a similar study directed toward Anaheim which demonstrates that no major terrain obstructions are in the path over the principal community, and compliance with the 73.625(a) principal community coverage requirement would be achieved if KDOC-TV were to operate from Mount Wilson. Thus, with the simple interchange of the DTV channel allotments proposed for KZKI and KDOC-TV, no violence is done to the MSTV/Broadcasters plan while yet affording Golden Orange the opportunity for implementing DTV operation for KDOC-TV at Mount Wilson.

The KZKI replication power for DTV operation on channel 55 would be 273 kW while the KDOC-TV replication power on channel 26 would be 64.4 kW. Both KDOC-TV and KZKI employ directional antennas which are materially different from one another. Accordingly, a study has been conducted to determine the prospect for first adjacent channel interference from the lower channel 55 DTV operation for KZKI to the upper NTSC channel 56 operation for

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<sup>3</sup> The tower location and antenna height selected are for KMEX-TV.

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KDOC-TV and vice versa. The desired to undesired signal strength ratio for lower channel DTV to upper channel NTSC interference is -17 dB. A comparison of the effective radiated powers at 10° intervals for the two operations indicates that the lowest D/U ratio is 4.5 dB. That ratio occurs along a bearing of 70° True. Hence, no interference to the NTSC operation of KDOC-TV will occur.

In the converse direction, the D/U ratio for upper channel NTSC avoidance of interference to the lower channel DTV facility is -49 dB. The maximum disparity of effective radiated power for KDOC-TV relative to DTV KZKI, channel 55, occurs at a bearing of 200° True where the D/U ratio would be -25.7 dB. Hence, no interference to the digital operation of KZKI on channel 55 would occur from the NTSC KDOC-TV operation on channel 56.

The channel 26 DTV allotment for KDOC-TV at Sunset Ridge would be entirely consistent with FCC criteria.<sup>4</sup> Based on the MSTV/Broadcasters plan, the closest cochannel facility would be that of NTSC KMPH, Visalia, CA, which

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<sup>4</sup> Because of the terrain and receiving antenna orientation problems, Golden Orange plans to implement its DTV facility at Mount Wilson if a feasible channel is allotted.

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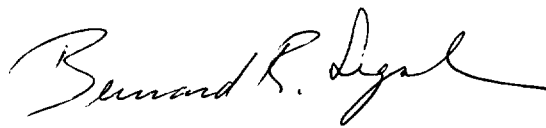
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is at a distance of 295 kilometers from Sunset Ridge, and 281 kilometers from Mount Wilson. No adjacent channel problems arise.

In summary, the simple interchange of channels 26 and 55 in the MSTV/Broadcasters table will not adversely impact the objectives sought in the Ex Parte Submission while yet preserving the opportunity for relocation of KDOC-TV to Mount Wilson. No adverse impact to the DTV operation of KZKI would occur on channel 55 due to the operation of NTSC KDOC-TV channel 56, and no adverse impact would occur to the NTSC operation of KDOC-TV on channel 56 due to the DTV operation of KZKI on channel 55.

  
Bernard R. Segal, P.E.

December 16, 1997

Note: The site and antenna center height for KMEX-TV were employed. Rays are at 1° intervals. 4/3 earth radius assumed.

## MT. WILSON TOWARD SAN BERNARDINO TERRAIN SHADOW STUDY

GOLDEN ORANGE BROADCASTING CO, INC.  
ANAHEIM, CALIFORNIA

Bernard R. Segal, P.E. Consulting Engineer

San Bernardino  
1990 U.S. Census  
Definition

DECEMBER 1997

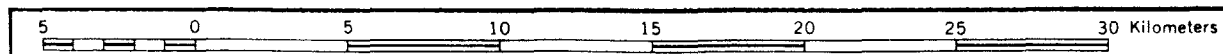


Figure 1

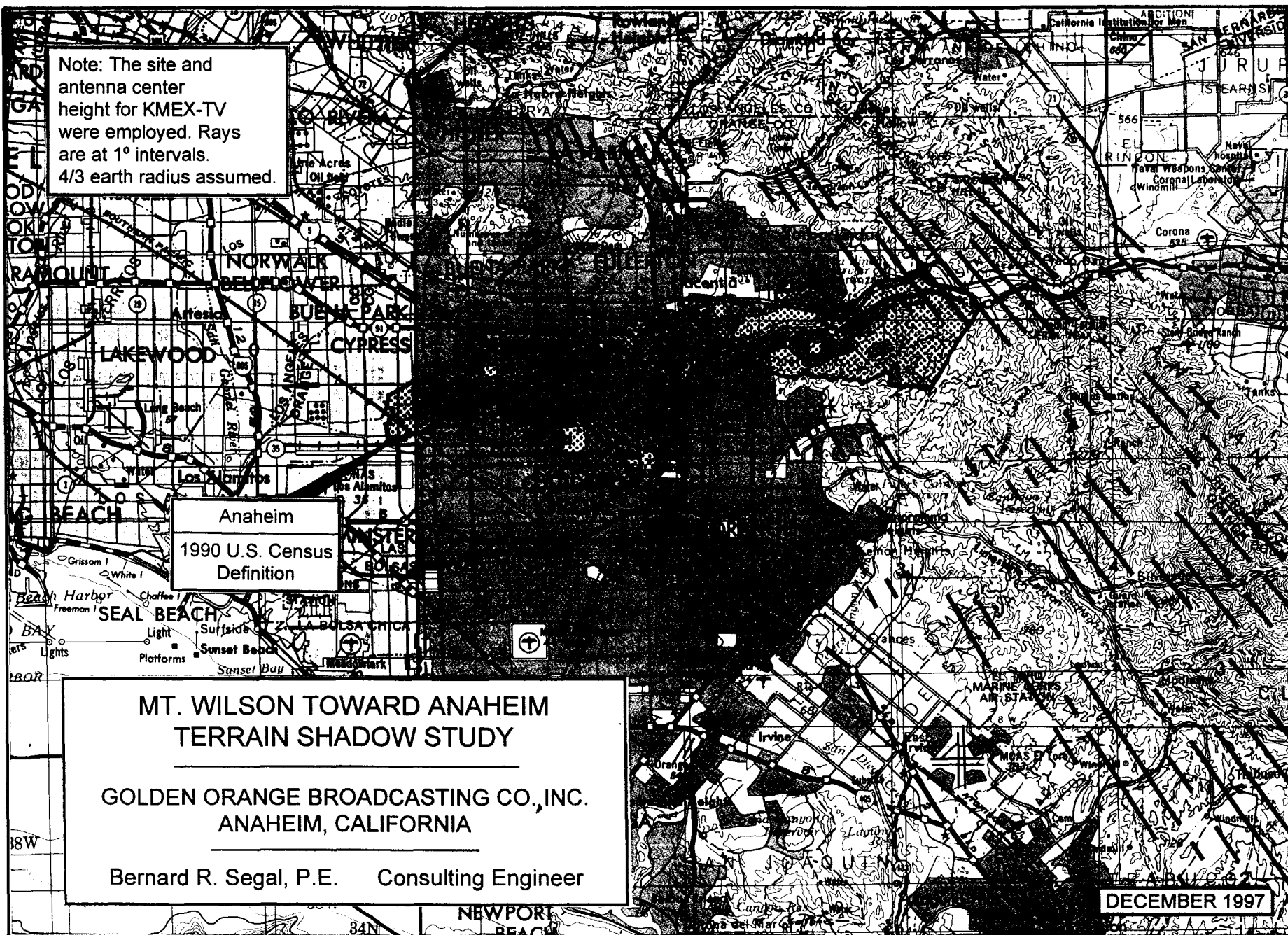


Figure 2

**CERTIFICATE OF SERVICE**

I, Brenda Chapman, hereby certify that on this 17th day of December, 1997 a copy of the foregoing "Comments of Golden Orange Broadcasting on MSTV Ex Parte Submission" was mailed, first-class U.S. mail, postage prepaid to the following:

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